Panasonic

OPERATING INSTRUCTIONS

Personal Computer
CF-41 Series

MK III

Customer's Record

Model
No._____

Dealer's
Name_____

Serial
No._____   _____

or

Code
No._____

Dealer's
Address_____

Date
of
Purchase_____   _____

IMPORTANT NOTICE

Thank you for purchasing the Panasonic computer. This computer is equipped with numerous convenient functions, and can be connected to a variety of optional peripheral devices. In order to learn to use your new computer system as quickly as possible, please study the Operating Instructions and CF-41 On-Line Manual thoroughly.

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For the contents of the CF-41 On-Line Manual, refer to page 1-12.

CHAPTER 1 Getting Started

CHAPTER 2 Operation

CHAPTER 3 Troubleshooting

Appendix

Conventions

NOTE ───────────────────

Useful facts or helpful information is provided below this convention.

CAUTION ───────────────────

This indicates a condition which will result in minor injury or can result in moderate injury.

WARNING ───────────────────

This indicates a hazard which will result in moderate injury or can result in serious injury or death.

CD-ROM Drive Caution

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFOR-
MANCE OF PROCEDURES OTHER THAN THOSE SPECI-
FIED HEREIN MAY RESULT IN HAZARDOUS RADIATION
EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF.
REFER SERVICING TO QUALIFIED PERSONNEL.

AVERTISSEMENT!
CET APPAREIL UTILISE UN LASER.
L'UTILISATION DE COMMANDES OU DE RÉGLAGES OU
L'EXÉCUTION DE PROCÉDURES AUTRES QUE CELLES
SPÉCIFIÉES ICI PEUVENT PROVOQUER UNE EXPOSITION
À DES RADIATIONS DANGEREUSES.
NE PAS OUVRIR LES COUVERCLES NI ESSAYER DE
RÉPARER SOI-MÊME.
CONFIER TOUT TRAVAIL D'ENTRETIEN À UN PERSON-
NEL QUALIFIÉ .

WARNUNG!
DIESE PRODUKT ERZEUGT LASERSTRAHLUNG.
DURCHFÜHRUNG ANDERER VORGÄNGE ALS DER HIER
ANGEGEBENEN KANN ZU GEFÄHRLICHER STRAHLUNG
FÜHREN.
REPARATUREN DÜRFEN NUR VON QUALIFIZIERTEM
FACHPERSONAL DURCHGEFÜHRT WERDEN.

VARNING!
Om apparaten används på annat sätt än i denna bruksanvisning
specificerats, kan användaren utsättas för osynlig laserstrålning,
som överskrider gränsen for laserklass 1.

CLASS 1 LASER PRODUCT
LASER KLASSE 1
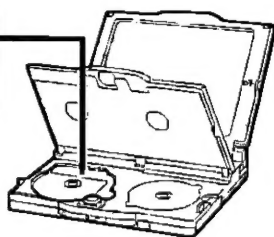
Lithium Battery

Lithium Battery!
This computer contains a lithium battery to enable the date, time, and other data to be stored in it.
Should only be exchanged by service personnel.
Warning! Risk of explosion from incorrect installation or misapplication!

Liliumbatteri!
Denna dator innehåller ett lithiumbatteri som avänds för att lagra datum, tid och annan data.
Bör endast bytas av sesrvicepersonal. Explasionsfara vid felaktig hantering.

For U.S.A.

Federal Communications Commission Radio Frequency Interference Statement

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning
To assure continued FCC compliance, the user must use only shielded interfacing cables when connecting to a computer or peripheral. Also, any unauthorized changes or modifications to this equipment would void the user's authority to operate.

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Warning
This apparatus must be earthed for your safety.

To ensure safe operation the three-pin plug must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.

Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.

The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe.
For your safety, if you have any doubt about the effective earthing of the power point, consult a qualified electrician.

FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 3 amp fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 3 amps and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark ⬡ or the BSI mark ⬡ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.
If a new plug is to be fitted please observe the wiring code as shown next page.
If in any doubt please consult a qualified electrician.

Warning: THIS APPLIANCE MUST BE EARTHED.

Important
The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow: Earth
Blue: Neutral
Brown: .   Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug. proceed as follows:
The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol (⌐ or coloured GREEN or GREEN-and-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

The mains plug on this equipment must be used to disconnect mains power.
Please ensure that the socket outlet is installed near the equipment and shall be easily accessible.

■ How to replace the fuse
Open the fuse compartment with a screwdriver and replace the fuse.

Fuse
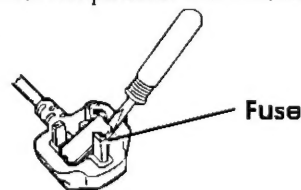
Warnings
- This equipment is not designed for connection to an IT power system.
(An IT System is a system having no direct connection between live parts and Earth, the exposed - conductive - parts of the electrical installation being earthed.
The IT System is not permitted where directly connected to public supply systems in the U.K..)

- Disconnect the mains plug from the supply socket when not in use.

This equipment is produced to BS800/1983.

"Cet appareil est conforme aux prescriptions de la Directive 76/889/CEE modifiée par la Directive 82/499/CEE."

■ Avertissement concernant la pile au lithium (pile de sauvegarde)
Pile au lithium!
Le micro-ordinateur renferme une pile au lithium qui permet de sauvegarder certaines données comme la date et l'heure notamment. Elle ne devra être remplacée que par un technicien qualifié.
Avertissement! Risque d'explosion en cas de non respect de cette mise en garde!

■ Installation Locations

Keep away from Heat and Cold

Don't store or use the computer in locations exposed to heat, direct sunlight, or extreme cold. Avoid moving the computer between locations with large temperature differences.
Operation: 5 °C to 35 °C (41 °F to 95 °F)
Storage: -20 °C to 60 °C (-4 °F to 140 °F)

Humidity and Dust

Don't store or use the computer in locations exposed to high humidity or much dust. Also, don't allow water or other liquids to spill on the computer.

Impact

Don't subject the computer to severe vibrations or impact. Don't place the computer inside a car trunk.

Avoid Radio Frequency Interference

Don't place the computer near a television or radio receiver.

■ Handling

Keep Magnets away

Keep the computer away from magnetic fields.

Stacking

Don't place heavy objects on top of the computer.

No Object Inside

Don't insert paper clips or other small objects into the computer. Don't attempt to disassemble the computer.
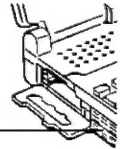
LCD Panel

- Be sure to never expose the LCD panel to direct sunlight or ultraviolet light.
- Be careful not to catch your hand when closing the display.
- Do not apply excessive downward force on the display when it is opened completely with plugs or cables connected to the DC-IN jack or external mouse/keyboard port on the rear of the computer.

Carrying

- Don't carry the computer without first turning off the power.
- Don't hold the computer by the LCD panel or the keyboard panel if the panel is open.

Ventilation

- Ventilation openings are provided in the computer to prevent overheating. These openings must not be blocked or covered.

Ventilation Openings

■ Maintenance

Surface of the LCD Panel

- Soak a piece of gauze or other soft cloth sufficiently in isopropyl alcohol only, and wipe the panel gently. Wipe the panel gently as using force may cause marks to remain on the panel the next time you turn the power on. Avoid wiping with a dry cloth, since this can damage the surface of the polarizing plate. Also be sure not to use water and perfumes, as these can dissolve the coloration of the polarizing plate.

Other than the Display

- Gently wipe clean using a soft cloth which has been soaked in water or neutral cleaner and wrung out thoroughly. Don't use solvents like benzine and thinners, nor chemical cloths.

■ Handling the AC Adaptor

- Don't twist or pull the AC power cord forcefully. Doing so may damage the connections.
- Use only the specified AC adaptor (CF-AA159M*) with your computer. Using an AC adaptor other than the one supplied might harm the battery and the computer.
  *: Factory Control Number
- When the DC plug is not connected to the computer, disconnect the AC power cord from your AC wall outlet as well. If the cord is kept connected, a very low level of power equivalent to approximately 1.5 watt will be consumed.

■ Against Computer Viruses

- This computer is not equipped with a virus check program. Periodically obtaining the latest virus check program and checking for viruses is recommended.

■ Interface Cable

- Use of an interface cable longer than 3 meters is not recommended.
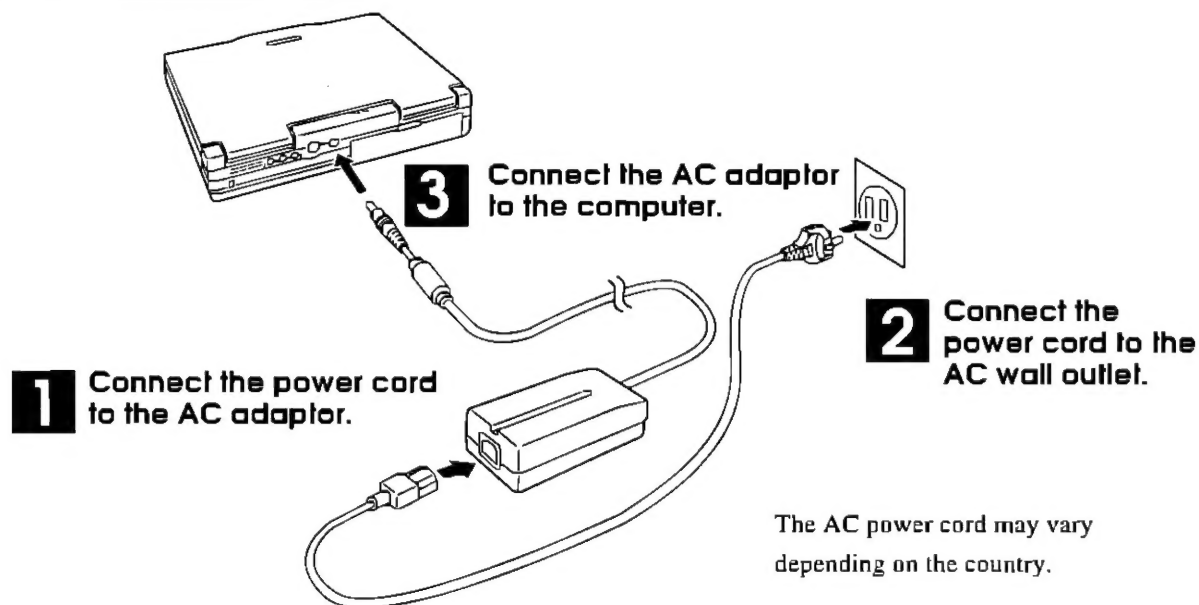
Getting Started $\boxed{1}$

Checking the Equipment

- ☐ Computer
- ☐ AC Adaptor (CF-AA159M*)
  - *: Factory Control Number
- ☐ Main Battery Pack (CF-VZS413)
- ☐ AC Power Cord
- ☐ CD-ROM Caddy
- ☐ Microphone
- ☐ Operating Instructions

- ☐ Windows® 95* System Pack
  - * Referred to hereafter as Windows in this manual and the CF-41 On-Line Manual.
- ☐ Floppy Disk "Backup Disk"
  - (This disk is for dealers, etc., to use during field servicing, and its contents may differ from the data on the hard disk. This disk should not be used, but should be stored in a safe place.)
- ☐ CD-ROM Disc "Firstaid CD"
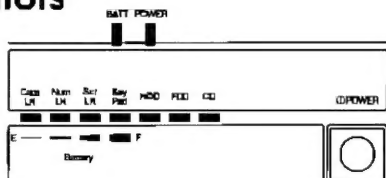 - (Utility Programs, CF-41 On-Line Manual)

Connect the AC Adaptor

When the AC adaptor is connected to the computer, the battery packs will be charged automatically.

3 Connect the AC adaptor to the computer.

2 Connect the power cord to the AC wall outlet.

1 Connect the power cord to the AC adaptor.

The AC power cord may vary depending on the country.

1-1

Open the Display

Indicators

Battery Indicator (BATT)

This indicates the extent of the battery's charge.

For details, refer to page 1-14 of this manual or CF-41 On-Line Manual.

POWER Indicator (POWER)

Power On: Green

CPU Cooling Down: Orange

> When the temperature of the CPU raises the processing speed is automatically reduced to protect the CPU from overheating.
>
> When the temperature of the CPU drops, its normal processing speed is automatically restored (POWER indicator: Green).

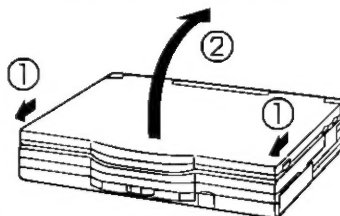### CapsLK/NumLK/ScrLK/KeyPad Indicators

When the function is being used: Green

When the password is awaited: Blinking (all 4 LEDs)

HDD/FDD/CD Indicators

During operation: Green

Slide the open latches on both sides of the display toward you (①), and open up the display (②).

Stereo Speakers

The computer's two speakers produce stereo sound. (Buzzer sounds are produced only from the left speaker.)

Mouse Buttons

When pressed while the trackball is in use, the buttons select items or perform other operations.

For users of the 10.4" LCD model

The computer is fitted with an LCD contrast control. (Illustrations for the 12.1" LCD model are used hereafter in this manual and the CF-41 On-Line Manual.)

LCD Contrast Control

Adjusts the contrast on the LCD.

Keyboard Latch

Slide the latch to the right to open the keyboard panel.

1-2

Liquid Crystal Display (LCD)

The LCD is automatically turned off when the display is closed; when the display is opened again, the LCD is turned on.

NOTE

The LCD display shut off when the power is turned off or the computer enters the standby mode, etc. However, residual images are visible in the LCD for a few seconds. This is a characteristic of TFT color LCDs, and is not a malfunction.

Brightness Switch

Adjusts the display brightness by 3 levels.
(On the 12.1" LCD model the contrast is preset.)

POWER Switch (① POWER)

Press this switch to turn the computer on and off.
When suspend function or hibernation function enabled, pressing POWER switch puts the computer suspend mode or hibernation mode.

Stereo Speakers

The computer's two speakers produce stereo sound.

Volume Control

Adjusts the volume of sound heard through the speakers or headphones.

Trackball

A built-in pointing device that works like a mouse. As you spin the ball with your fingertips, the cursor moves in accordance with the speed and direction of the ball's motion.
Simultaneous use of both a trackball and an external mouse (serial or PS/2) is not possible.

Multimedia Pocket

The main battery pack, FDD pack or FMV Pack2 unit are installed in this pocket.

CAUTION

Leaving the pocket empty can allow foreign matter to enter, resulting in damage. Make certain that one of these units is always installed.
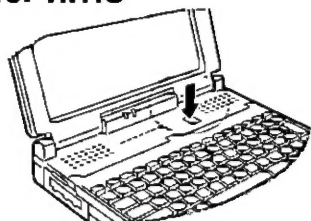
MP Eject Button

Push to remove the module installed in the Multimedia Pocket.
(Disengage the MP lock before pressing this button.)

Power On

Starting Up for the First Time

This computer comes with Windows and other software programs already installed. For this reason, you are required to read through the LIMITED USE LICENSE AGREEMENT card, which is shipped with this product, and the screen displays (Panasonic Licence Agreement), and agree to the restrictions in the agreement prior to using these software programs.
Use the U.S. version keyboard layout for input at this step (see page A-3). When start-up is completed, the proper keyboard layout for the country concerned will be set.

The program for creating "Firstaid FD" is automatically started. Have ready one blank floppy disk (3.5" 2HD, which is not write-protected), and proceed according to the instructions given.

CAUTION

Do not power off or enter the suspend mode*¹ or hibernation mode*² while the "Firstaid FD" is being created.

*¹ This function saves to the memory the computer's status previous to power-off. Then, when the computer is powered on again, it restores the previous status. When no power is being supplied, the data held by the suspend function will be erased.

*² This function saves to the hard disk the computer's status previous to power-off. Then, when the computer is powered on again, it restores the previous status. Even when no power is being supplied, the computer can be restored to the previous status.

Windows 95 Setup starts. From this point onward, clicking the "Next >" button advances to the next step. Clicking the "< Back" button returns you to the previous step. Follow the instructions on the screen to set the desired regional settings and keyboard layout, and to record your name and the name of your company.

NOTE

For U.K. version model users, set the keyboard layout to "English (British)".

The Windows 95 License screen is displayed. Read through the screen displays (License Agreement) and agree to the restrictions in the agreement prior to using these software programs.

The Certification of Authenticity screen is displayed. Input the Product ID number printed on the sticker affixed to the Introducing Microsoft Windows 95 book included in the Windows 95 System Pack.

Click the "Next >" button on the Configuring the Computer screen to install the Windows initialization settings (device installation, etc.) automatically. After completion, the Finishing Setup screen is displayed. Click the "Finish" button and then click the "OK" button. The computer will restart automatically. Follow the instructions on the screen.

NOTE

- On the Printer setting screen:

  If you have not yet decided which printer you wish to use, click the "Cancel" button. The Printer setting may be made and changed after Windows has started. To set later, double-click "Printer" from the "Control Panel".

- On the Time Zone setting screen:

  Click the "Date & Time" and check the time displayed. The clock is set to local Japan time at the factory. The Time Zone setting may be made and changed after Windows has started. To set later, double-click "Date/Time" from the "Control Panel" or the clock located at the end of task bar.

(To next page)

The Welcome to Windows 95 screen is displayed. Click the "Close" button to display the screen shown at left. Refer to the Introducing Microsoft Windows 95 book included in the supplied Windows 95 System Pack for information on basic Windows operation.

CAUTION

- Do not execute the setup program and DIAG41 program from other operating systems (OS/2, Windows NT etc.).
- The settings for Windows have been preset to the optimal environment for this computer. For example, the display may malfunction if the display settings below are modified.

```
Adapter Type:    Chips & Tech. Accelerator
Monitor Type:    Super VGA 1024 x 768
```

If an incorrect setting is made, refer to troubleshooting (page 3-2).

NOTE

- To see information regarding the use of Windows:

  Click the "Start" button, move the cursor to "Documents", and click "Readme".
- To see information on using the CF-41:

  Click the "Start" button, move the cursor to "Panasonic" from "Programs", and click "Read me please".
- When Windows starts up, the standard program AVMain also starts up. Nothing will be displayed if you click "AVMain" in the "Panasonic" in "Programs", or "AVMain" in the "StartUp" in "Programs".

Starting Up for the Second and Subsequent Times

The software license agreement screen will no longer appear. Windows starts up automatically unless a system password has been set.

If the system password is specified :

Computer's Action	Your Action
A message appears at the top left. + Caps Num Scr Key LK LK LK Pad ■ ■ ■ ■ Blinking Enter password:	Input the password you have already registered.
Invalid password	Wrong password; input the correct password.

(No message appears when the suspend function has been enabled.)

```
System will shutdown.
```

If the wrong password is input three times in a row, this message appears, and the power is automatically turned off. (If the suspend function has been enabled, no message appears, and the suspend mode is engaged automatically.)

Switching Off the Power

Be absolutely sure to exit Windows before switching off the power.
To exit Windows and switch off the power, click the "Start" button and then click the "Shut Down...". The "Shut Down Windows" will appear, select "Shut down the computer?" and click "Yes" button. The computer will switch off automatically, so there is no need to press the POWER switch. If you switch off the power without exiting Windows, you may destroy the data on the hard disk.

CAUTION
- Do not turn off the computer right after turning it on.
  Allow at least 10 seconds to elapse after switching off the power before turning it back on again.
- Do not switch off the computer while the floppy disk drive, the hard disk drive, or the CD-ROM disc drive is operating.

When suspend function or hibernation function enabled, pressing POWER switch puts the computer suspend mode or hibernation mode.

CAUTION
Be sure never to press the POWER switch while the hibernation process is being carried out. Also, do not input from the keyboard or move the mouse or trackball. The processing may not be executed correctly.

To Restart the Computer in MS-DOS Mode

Click the "Start" button and then click the "Shut Down...". The "Shut Down Windows" will appear, select "Restart the computer in MS-DOS mode?" and click "Yes" button.
To start up Windows, type:
    exit ⏎

CD-ROM Drive

The CD-ROM drive is visible once the keyboard panel has been opened.

Before Using the CD-ROM you have purchased for the first time

Remove the optical pickup protective sheet which has been inserted into the laser head section.

Opening and Closing the Keyboard Panel

**1** **Check that the CD indicator is not lit**   HDD FDD CD

CAUTION

Do not open the keyboard panel during CD-ROM access or when running a CD-ROM-based application. Doing so could interrupt CD-ROM access or lead to software upset.

CD-ROM Drive
- The CD-ROM drive will become somewhat warm during normal use. This is not a malfunction.
- Do not touch the lens.

Keyboard Panel

CD-ROM Disc Storage Space (One disc)
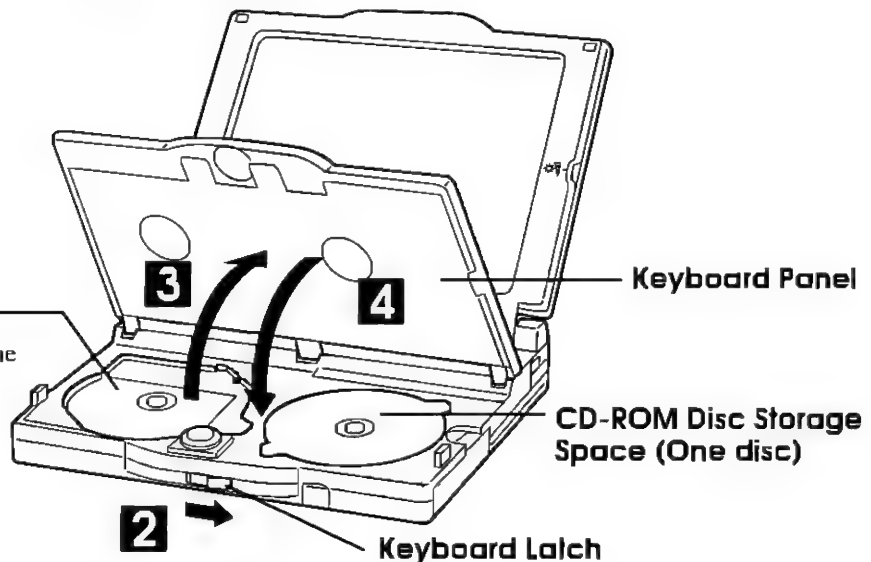
Keyboard Latch

2 **Slide the keyboard latch to the right**
Slide the latch at the front of the computer.

3 **Open the keyboard panel**
Open up the keyboard panel gently until it stops as shown in the illustration above.

CAUTION

Do not apply excessive force after the keyboard panel is opened completely. Doing so may damage the computer.
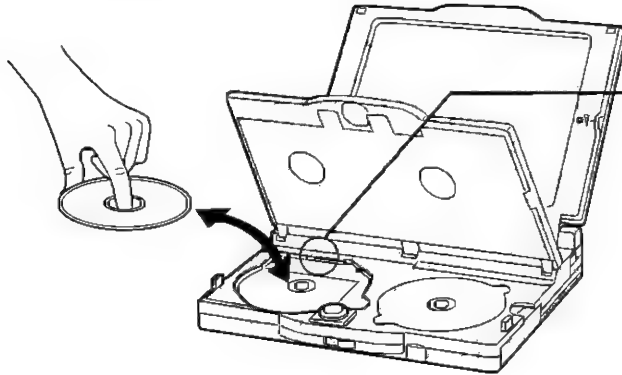
4 **Closing the keyboard panel**
Close the panel securely until it clicks into position.

Installing CD-ROM Discs

Both 12 cm and 8 cm CD-ROM discs can be installed on the CD-ROM drive.

When using the caddy, refer to "Using Caddy" on this page.

Latches

When using the CD-ROM disc as is, without inserting it into a caddy, be careful of the latches that hold the caddy when you install or remove the CD-ROM disc. If the disc comes into contact with the latches it may be damaged.
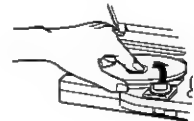
1 **Open the keyboard panel**

For details on how to open the keyboard panel, refer to page 1-8.

2 **Installing CD-ROMs**

Place the CD in the drive and push down until the center holder clicks.

3 **Removing CD-ROMs**

Place your finger on the center holder and lift up on the edges of the CD.

Using Caddy

Place the 12 cm CD-ROM disc in the caddy provided, and then insert the caddy into the CD-ROM disc drive.

Use only 12 cm CD-ROM discs in the caddy. If an 8 cm disc is placed inside the caddy, it may move around and sustain damage.
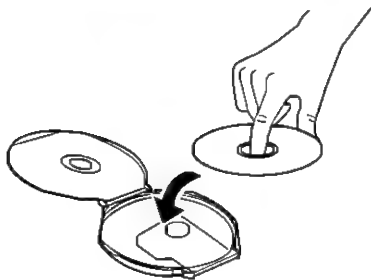
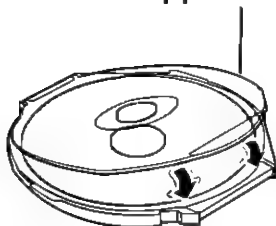### Place the CD-ROM Disc in the Caddy

1 **Open the caddy's upper case**

Place your forefinger in the hole at the center of the caddy's upper case (transparent lid) to open the upper case.

Upper Case (Transparent Lid)
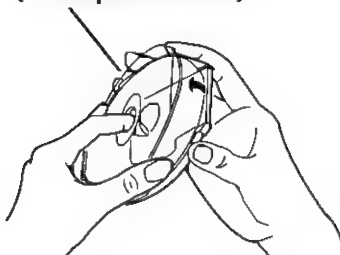
2 Insert the CD-ROM

Insert the CD-ROM disc in the caddy with its printed side facing up.

Upper Case

3 Close the upper case securely

Inserting the Caddy into the CD-ROM Drive

1 Open the keyboard panel

For details on how to open the keyboard panel, refer to page 1-8.

Hinge Side

2 Remove the bottom cover of caddy

Holding the hinge side, remove the bottom cover as shown in the illustration. To ensure that it is not lost or misplaced, place the cover inside the CD-ROM disc storage space on the right side of the computer.
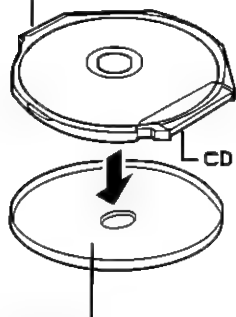
CD Exposed Section (Bottom Side)

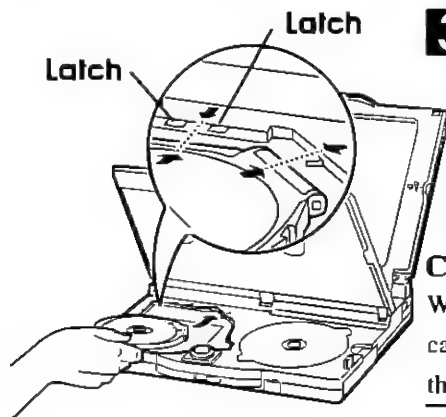**Bottom Cover**

CAUTION

- Hold the hinge side when removing the bottom cover. Part of the disc is exposed on the opposite side to read data.
- The CD-ROM disc storage space can accommodate one CD-ROM disc and bottom cover at the same time. Always insert CD-ROM disc first and then the cover, with the engraved side up. Putting a CD-ROM disc on top of the cover or inserting the cover upside-down could cause scratches or bending.
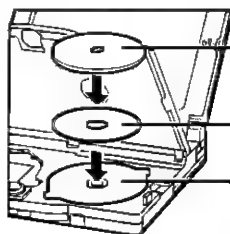
Bottom Cover

CD-ROM Disc (One disc)

CD-ROM Disc Storage Space

Latch

Latch

3 Insert the caddy

Check that the CD-ROM disc is inside the CD-ROM caddy and that the bottom cover has been removed, and align the two arrows on the upper case with the two arrows on the computer. Latches are provided where the left side arrow is located on the computer. Check that the caddy is placed under these latches.

CAUTION

When holding the caddy with a CD-ROM disc, remember to hold the caddy part. If you hold the part where the disc is exposed, you will touch the CD-ROM disc, possibly making it dirty or damaging it.

PUSH TO ENGAGE
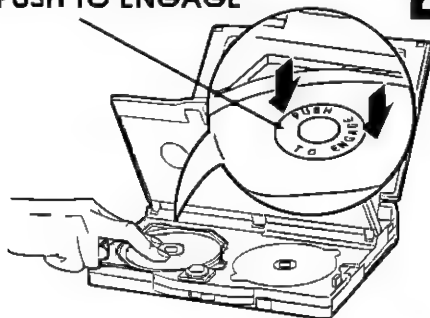
4 Push the caddy

Push the "PUSH TO ENGAGE" area on the upper case using two fingers, and insert the whole caddy into the drive.

5 Close the keyboard panel

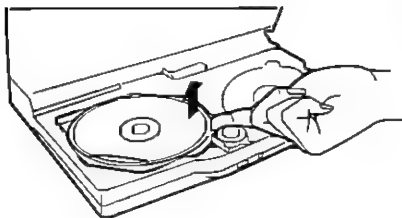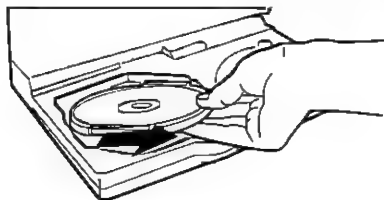## Removing the Caddy from the CD-ROM Drive

1 Open the keyboard panel

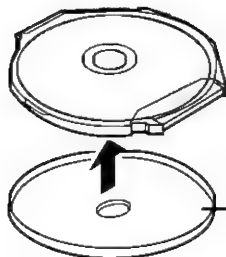For details on how to open the keyboard panel, refer to page 1-8.

2 Lift the caddy

Place your forefinger at the position shown in the illustration, and lift the caddy.
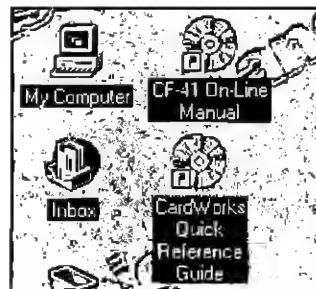
3 Remove the caddy

4 Returning the bottom cover

Remove the bottom cover from the CD-ROM disc storage space and attach it to the caddy.

Bottom Cover

Manuals

1 Install the enclosed "Firstaid CD" in the CD-ROM drive.

2 Double-click the "CF-41 On-Line Manual" or "CardWorks Quick Reference Guide" icon on the screen.

CF-41 On-Line Manual (manualen.hlp)

This manual contains information for operating the CF-41 series as well as some information not included in the Operating Instructions (this book).

Contents

Overview	Information on the names and functions of each part.
Precautions	Cautions when using the computer, batteries, CD-ROM, floppy disks, etc.
Battery Power	Information on charging and conserving the charge of the battery pack, remaining charge indications, etc..
Using Audio CD	Information on using the Audio CD.
Expandability	Introduction of CF-41 series options.
Utility Programs	Information on operating environment setup programs. Setup41 Windows, diagnostics programs, etc.
Keyboard	Information on various functions performed by key combinations.
Appendix	

CardWorks™ Quick Reference Guide (card.doc)

CardWorks™ is the complete PC Card solution for Windows. This guide describes CardWorks™ features and hints for using CardWorks™.

When Operating Your Computer with MS-DOS Prompts While Viewing the CF-41 On-Line Manual

1 Click the "Start" button, move the cursor to "Programs", and click "MS-DOS Prompt".

NOTE
If the "MS-DOS Prompt" is displayed in the full screen mode, press **Alt** + **Enter** key to display the MS-DOS prompt in windows.

**2** Double-click the "CF-41 On-Line Manual" on the screen.

Battery Power

This section describes how to correctly maintain and care for the rechargeable batteries.

For information on the operating time, indicator displays and other details concerning the battery, refer to the CF-41 On-Line Manual contained in the Firstaid CD.

Kinds of Batteries

In order to extend the battery operation duration, it is recommended that both the main and sub batteries be installed.

Underside
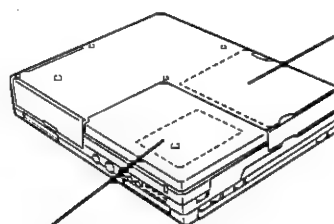
Main Battery (Ni-MH rechargeable battery pack)
This is the battery for operating the computer, and be removed.

Sub Battery (Ni-MH rechargeable battery pack)
This auxiliary battery is used when operating the computer and when the main battery is being replaced. It supports the suspend mode.

Clock Battery (Lithium battery, non-rechargeable type)
This battery is housed inside the computer is for operating the clock and retaining the settings.

1-13

To extend the duration of the computer's battery operation:

- In the setup program, set "Power Saving" in "Power Management" to "Advanced" and set the Brightness Switch to Low.

NOTE

- When the Brightness Switch is set to Low, the display takes 5 to 10 minutes to reach normal brightness after the power is turned on. Leave the Brightness Switch on Low and wait.
- Certain applications may not run when "Power Saving" is set to "Advanced". If this happens, set "Power Saving" to "Standard".

- When Windows is activated, click the "Start" button, move the cursor to "Settings", and click "Control Panel". Select "Power" from the "Control Panel" and confirm that the "Advanced" setting is selected under "Power management". The default setting is "Advanced".
- When not using the CD-ROM drive, press **Fn** + **F4** to turn off the CD-ROM drive motor.

Battery Indicator

The battery power indicated by the battery indicator on the central hinge describes the following 8 conditions.

Battery Indicator	Battery Status
Orange	Charging
Green	Fully charged
Red	Low battery • Connect the AC adaptor to the computer. • Replace the main battery pack with fully charged one. For details on how to change the main battery pack, refer to page 2-4.
Blinking red	The battery pack or AC adaptor may not have been connected properly.
Blinking orange	Refreshing (As charging is temporarily discontinued while the CD Player is running (by pressing **Fn** + **F7**), the battery indicator will go on and off.)
Blinking green	Refreshing required
Not lit	When the AC adaptor is not connected or charging is not performed.
Blinking orange for 5 seconds following the connection of the AC adaptor	The temperature of the batteries is outside the range of approximately 5 °C to 35 °C (41 °F to 95 °F).

Charging Precautions

- Since neither the main battery nor sub battery is charged when the computer is purchased, be absolutely sure to charge these batteries before using the computer.
  Charging commences automatically when the AC adaptor is connected.
- When a battery is new or when it has not been used for a prolonged period of time, it will not reach its full charge after it has been recharged only once.
- When battery charging has commenced, do not discharge the battery until the charging operation is completed.
- Do not proceed to charge the battery until it has become completely discharged (low battery alarm sounds).
- Do not recharge the battery in any other computer or using a recharger other than the one which is designated.
- When the battery operation duration has fallen to half or so, repeat the battery refresh operation two or three times. If the operation duration is not extended even by repeating this operation, it means that the battery has reached the end of its life span and that it should be replaced with a new one.

During use of the CD-ROM disc drive

- Charging is temporarily discontinued, so the battery indicator also goes off temporarily.
- Battery charging is temporarily discontinued while the CD Player is running (by pressing **Fn** + **F7**).
- If the CD AutoPlay function* is enabled, the battery is not usually charged. When charging the battery, we recommend this setting is disabled (default setting).
  * The AutoPlay function automatically plays the disc when it is placed in the CD-ROM drive while running Windows. The CD-ROM drive is accessed periodically regardless of whether or not a CD is inserted.

Battery Becomes Warm to the Touch.....

- Installing and attempting to charge a battery pack that is already fully charged, or installing and removing a battery pack several times in quick succession, can result in overcharging and cause the battery to heat up. Such treatment can damage the battery pack.
- The battery pack will become somewhat warm during normal use. This is not a malfunction.

Operating Temperature

- It is recommended to operate the computer at an operating temperature between 5 °C and 35 °C (41 °F and 95 °F).
- The battery's operating time will decrease if the operating temperature is low.
- An unusually high or low operating temperature during charging will reduce the battery's storage capacity.
- In order to maintain the performance of the batteries, charging will not commence when the temperature of the main battery or sub battery is outside the 5 °C to 35 °C (41 °F to 95 °F) range. If an attempt is made to start charging under these circumstances, the battery indicator will blink in orange for 5 seconds to indicate that the temperature is outside the given range.
  Charging will commence automatically once the temperature of the batteries has returned to the given temperature range. Charge the batteries only within this range. The battery temperature may rise as high as 60 °C (140 °F) during charging.
  Charging will not commence, for example, at any of the following times:
  - When the battery temperature rises outside the given temperature range during charging and the AC adaptor is disconnected, and an attempt is made to start charging again
  - When its temperature rises outside the given temperature range while the sub battery is fully charged or while it is being charged and the main battery is installed, and an attempt is made to start charging
  - When the computer is left on a winter's day inside a car, and the battery has cooled off to such an extent that its temperature has fallen below the temperature range

Battery Service Life

If the battery pack's period of use becomes very short and its performance is not restored after a few cycles of refreshing, the battery pack has reached the end of its service life and it should be replaced with a new one.

Also, a situation such as that described below can occur if the battery has been in use for a long time.
This means that the battery is at the end of its service life. Purchase a new battery. Replacement.

• After being fully charged, the low battery warning appear after only a short period of use. Performance does not improve even after two or three charge-discharge cycles (refreshing procedure).

• The main battery may operate for only a short time when it is installed in the Multimedia Pocket for the first time. In this case, refresh the battery.

Appropriate Storage Method

If the computer will not be used for an extended period of time (approximately two months or more), discharge the battery first by using the "refresh" method, remove it from the computer and store it in a cool place. If the computer will be used by only the AC adaptor for an extended period of time, do not remove the sub battery.
Excessive discharging of the battery can occur if it is left connected to the computer during extended periods of disuse, possibly shortening its service life or causing damage to the computer. Note that the battery will not become discharged if the AC adaptor is left connected, so it may be left installed in such cases.

If the Battery Drive Time is Shorter Than Expected

• If the computer is operated by the battery for a short period of time and then charged by the AC adaptor, this causes a shallow charge-discharge cycle. The repetition of such shallow charge-discharge cycles causes the battery's operating time to decrease temporarily.
The above should be kept in mind if you decide to run the computer off the battery after it has been running off the AC adaptor for an extended period of time.

The computer automatically determines the need for battery refreshing. The screen reminding the user to refresh the battery appears when the computer has been started up.
Refreshing is commenced when any key is pressed.
In this case, the battery indicator blinks in green to indicate the need for battery refreshing. Proceed to refresh the battery.

- If you leave a fully charged battery for 2 to 4 weeks in temperatures above 35 °C (95 °F), the battery's operating time may decrease temporarily. These conditions are not due to a fault in the battery. Normal performance can generally be restored by fully charging and then discharging the battery two or three times in succession with the suspend function or hibernation function disabled.

In order to fully discharge the battery in a short period of time, the battery refresh tool (BATTREF.EXE) is provided.

Please note that the battery operating time may vary drastically depending on the type of installed options.

- Replace the battery pack if the amount of time the computer can be operated on a full charge drops to approximately one half of the normal duration.

Precautions

- When transporting spare batteries inside a package, briefcase, etc., it is recommended that the batteries be stored in a plastic bag.
- Exposure to strong shocks (such as being dropped on the floor) can cause the battery pack to malfunction.
- Do not expose the battery pack to open flame.
- Always switch off power and unplug the AC adaptor before replacing the battery pack.
- Do not throw the battery pack into a fire.
- If you leave the power on without connecting the AC adaptor, the battery pack will run down. Be sure to switch the power off when not using the computer.
- Do not hold the sub battery pack by the cable, and do not twist, bend, or apply excessive force to this cable.
- Use the battery pack only with the computer for which it was designed.
- Take care not to short circuit the battery pack by dropping it or damaging the insulation. Overheating or fire could result.
- Do not directly connect the negative and positive terminals on the battery pack.
- Do not touch the battery terminals on the battery pack. Damaged terminals may cause system performance failure.
- If, due to damage, battery electrolyte comes in contact with skin or clothing, wash it off quickly and thoroughly with water. Consult with your physician if you feel something is wrong with you physically.

How to Refresh the Battery

Follow the instruction below to execute the battery refresh tool after the battery is fully charged.

Battery refreshing time: 1 to 8 hours (depending on state of battery)

NOTE

Do not execute "BATTREF" at the "MS-DOS Prompt" in Windows.
Execute this program after restarting the computer in MS-DOS mode.

1 Exit any application programs that may be running, and click "Start" button, and then click "Shut Down...". Select "Restart the computer in MS-DOS mode?" and click "Yes" button.

2 Ensure that the Docking Unit is not connected.

If you connect the computer to the Docking Unit, turn off the both units, and disconnect. And then, turn on the computer.

3 After making sure that the display panel is open and the LCD is on, type the following at the MS-DOS prompt.

battref.exe （↵）

A verification message now appears. Press **Y**.

```
BATTREF will boot your computer and start
battery refresh.
Are you sure? (Y/N)
```

4 The computer is automatically rebooted, and the screen shown below appears.

```
Press any key to refresh battery, or ESC to
boot.
```

NOTE

If the Docking Unit is connected or the display is closed, the following messages will appear. Follow the instructions on the screen.

When the Docking Unit is connected:

```
Detach Docking Unit and turn notebook on again to
refresh battery.
Or, press ESC to boot.
```

When the display is closed:

```
Please Open LCD panel.
```

5 Press any key to start discharging of the battery. The screen shown below appears during the refresh of battery.

```
Refreshing battery.
Don't touch unit until all LEDs have turned off.  LCD will go off
prior to this.
Refresh can take up to 8 hrs.  Press ESC to cancel and boot.
```

Leave the computer on until the POWER indicator goes off, even if, the screen turns off.

6 When the POWER indicator goes off, battery charging commences automatically. If the AC adaptor is not connected, connect it to charge the batteries fully.

NOTE

- When charging a completely discharged battery, assure the proper refresh effect by leaving the AC adaptor plugged in until the battery indicator grows green (which indicates a complete recharge).
- The battery indicator grows orange (charging mode), however, charging is not performed for the first one hour in order to increase the charging efficiency.

Sub Battery Replacement
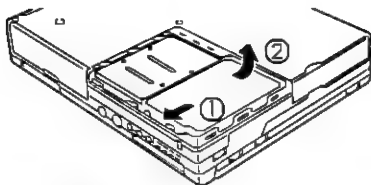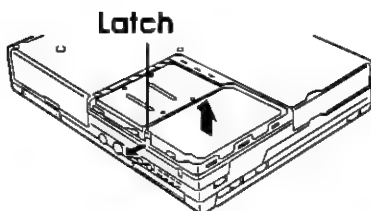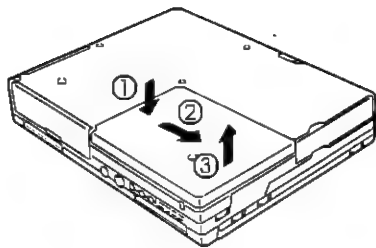
Removing

1 Turning off the computer

Press the POWER switch to confirm that the computer is not in the suspend mode or hibernation mode. Be sure to turn off the computer following the procedure on page 1-7.

2 Remove the cover

Turn the computer upside down. Push down on the end of the cover (①) and slide the cover in the direction of the arrow (②), and then lift it straight up (③).

3 Allow the battery pack to rise slightly

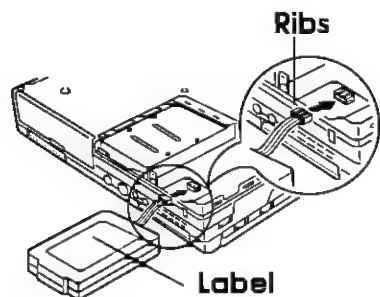While pressing the latch to open it, lift the battery pack until it rises slightly.

4 Remove the battery

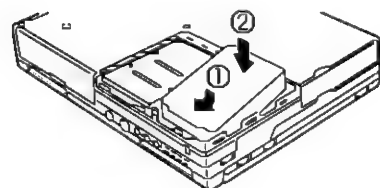① Pull the battery in the direction of the arrow.
② Remove the battery.
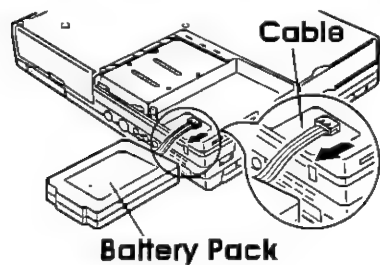
Cable

Battery Pack

5 Disconnect the cable

Hold the cable and pull it out in the direction of the arrow.

Ribs

Label

Attaching

1 Connect the cable

Insert the cable with the ribs on the connector facing up. Check that the ribs are firmly secured in place.

2 Insert the battery pack

Insert the battery pack with its label side facing downward in the directions of the arrows following the numerical sequence given. Insert the cable between the battery pack and the compartment in such a way that it is not caught or twisted.
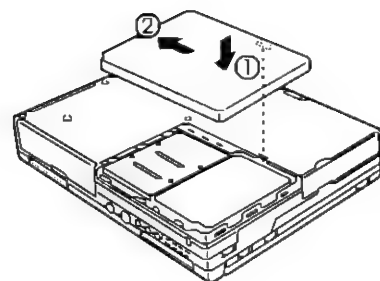
3 Attach the cover

Insert the projection in the cover into the groove provided(①) and slide the cover in the direction of the arrow(②).

Operation

Audio CDs

You can listen to audio CDs bearing the ◉[[SC]] logo.

With CDs bearing the (GRAPHICS) logo, no images will appear but music can be played.

Procedure

1 Turn on the computer

Windows starts up automatically.

NOTE ———————————————————————

You cannot listen to the sound from a CD if you have restarted the computer in MS-DOS mode.

2 Install the CD

Check that the CD indicator is not lit.

Open the keyboard panel and install the CD in the CD-ROM drive.

3 Press Fn + F7

The CD Player now starts up, and the screen shown left appears.

Click the ▶ button to listen to music starting with track 1.

NOTE ———————————————————————

- To learn the function of a button, move the cursor over it. A message discribing the button's function appears.
- Since the CD-ROM drive is not of the tray type, clicking on the ⏏ (Eject) button only causes playback to stop.
- This computer has a CD AutoPlay function. This function automatically plays the disc when it is placed in the CD-ROM drive while running Windows. CD AutoPlay can be enabled (default setting is disable) with "Device Manager" in the "System Properties" screen (double-click "System" on "Control Panel").
- If the CD Player is running or the CD AutoPlay function is enabled, battery charging will take additional time as it is temporarily discontinued. As the CD-ROM drive is accessed peridically regardless of whether or not a CD is inserted, the suspend/hibernation timeout and standby timeout do not go into effect.
- Note that the sound may jump if the computer sustains an impact or the keyboard is knocked hard during audio CD play. This is not a malfunction.

Installing Cards

Two types of cards, RAM cards and PC Cards (PCMCIA cards), can be installed. Install these cards in the respective dedicated slots under the cover on the left side of the computer.

RAM Card

Use RAM cards with the model numbers listed below:

    4 MB: CF-BA2004 (3.3V), CF-BA1804 (5V)

    8 MB: CF-BA1908 (3.3V), CF-BA1808 (5V)

    16 MB: CF-BA1916 (3.3V), CF-BA1816 (5V)

The card with the model number of CF-BA1904 cannot be used.

Before Installing or Removing the Card

Press the POWER switch to confirm that the computer is not in the suspend mode or hibernation mode. Be sure to turn off the computer following the procedure on page 1-7.
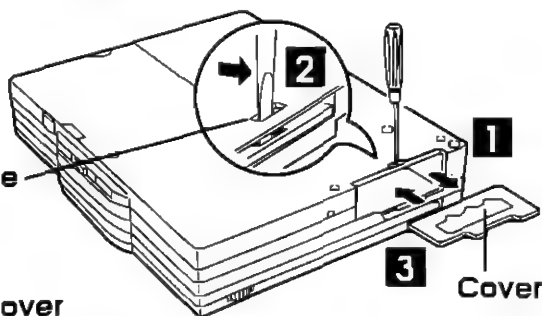
CAUTION

Installing or removing card with the power on or when the computer is in the suspend mode or hibernation mode could damage the cards or prevent them from being recognized properly.

RAM cards are installed in the slot at the very bottom so that the word "Panasonic" is facing you.

Removing

RAM Card Eject Hole

Cover

1 Removing the cover

Turn the computer upside down and open the cover and remove by pulling in the direction of the arrow.

2 Removing the card

Insert a small screwdriver or similar tool into the RAM card eject hole until it reaches the hole in the RAM card. Slide the screwdriver slowly in the direction of the arrow to remove the card.

3 Close the cover

Close the cover, which was removed in step **1**, firmly until it clicks back into position.
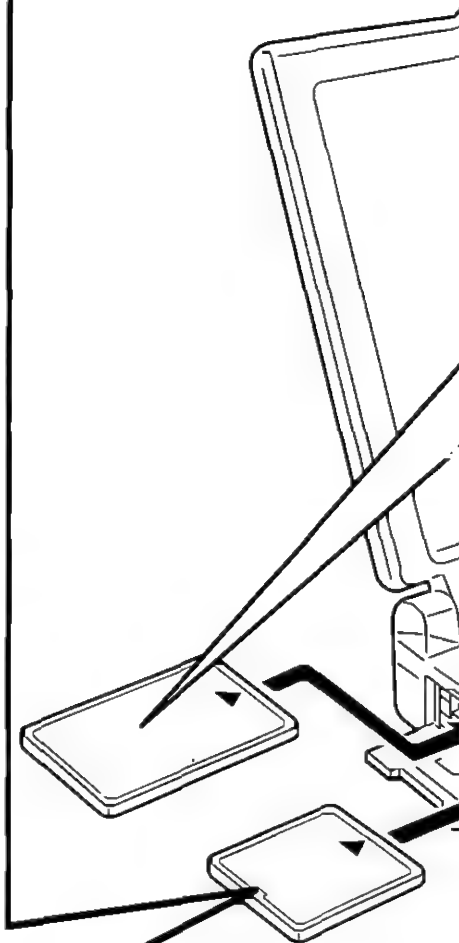
PC Card (PCMCIA card)

Plug and Play (PnP) Feature

This computer implements Plug and Play when installing PC Cards. The Plug and Play feature allows cards to be installed by simply inserting them into the computer's slot. There is no need for any special operations, such as setting jumpers or software utilities. Even cards that are not compatible with Plug and Play can be used by simply following the instructions on the screen. For cards not compatible with Windows® 95, use CardWorks™. If the card can still not be used, contact the card manufacturer. For cards not compatible with Windows® 95 "Empty" is displayed in the "PC Card (PCMCIA) Properties" screen (double-click "PC Card (PCMCIA)" in the "Control Panel").

Allowable Power Requirements

Use the two top slots to install PC Cards. Always confirm the power consumption of PC Cards before use. Care should be taken as using PC Cards whose power consumption exceeds the allowable power requirements of the PC Card slots may cause malfunctions. See the Specifications on Page A-2 for the allowable power requirements.
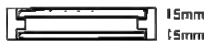
Type I and Type II cards (which are less than 5 mm thick) can be installed in either the upper or lower slot. Two such cards can be installed in both slots.

Install a Type III card (1.8" HDD, etc.) in the lower slot.
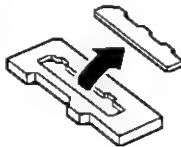
When a LAN, modem or other card provided with a cable has been installed, the cable can be connected to the installed card after the center part of the cover has been broken off and the cover closed. Leave the cover open for use if the center part is not to be broken off.

Removing Cards

CAUTION

Because Windows® 95 is multi-task, it may be accessing the PC Card in the background. Before removing the PC Cards from the slots, always safely stop accesses to the PC Card. To stop accesses, click the "CardWizard" from the "CardWorks" in the "Program", and click the "Stop" from "Action" menu.
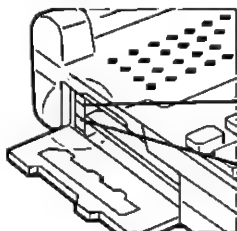
The card will pop out partially when eject button 1 or 2 is pressed and can then be removed by hand.

Eject Button 1
Press this to remove the card installed in the upper slot.

Eject Button 2
Press this to remove the card installed in the lower slot.

Multimedia Pocket

The main battery pack, FDD pack or FMV Pack2 unit are installed in this pocket.

## Replacing the unit

1 Switch off the power

Press the POWER switch to confirm that the computer is not in the suspend mode or hibernation mode. Be sure to turn off the computer following the procedure on page 1-7.

CAUTION

Be sure to turn off the power. Changing units while the computer is being used or is in the suspend mode or hibernation mode could damage the unit or prevent it from being properly recognized.

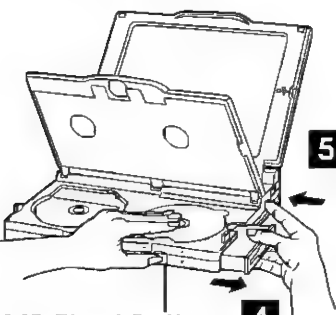MP Lock
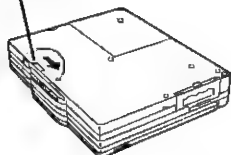
2 Releasing the MP lock

Turn the computer upside down, and slide the MP lock in the direction of the arrow to release the lock.

3 Opening the keyboard panel

Slide the latch at the front of the computer to the right to open up the keyboard panel as shown in the illustration on the left.

4 Remove the unit

Lift the computer slightly, place the index finger of your right hand against the side of the computer for support, and use the other fingers to draw out the unit while holding down the MP eject button, as shown in the illustration.
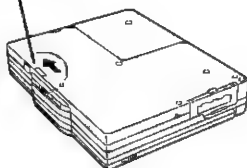
MP Eject Button **4**

5 Install the new unit

Install the unit with its label side facing up until it clicks into position.

MP Lock

6 Secure the MP lock

Slide the MP lock in the direction of the arrow to secure it.

Connecting Peripheral Devices

CAUTION

Be absolutely sure to switch off the power to the computer and peripheral devices before connecting or disconnecting the peripheral devices (except for speaker and microphone). Failure to do so may cause damage to the system. After devices have been connected, check that the connections are secure.

Stereo Input Jack (LINE IN)

Connect the input from an audio unit, VCR or other audio output (stereo) unit to this jack. This is a miniature jack (3.5 DIA).

External Mouse/Keyboard Port (MOUSE/KB)

When using an IBM PS/2 type external mouse or keyboard, insert the connector into this port.

In some circumstances, if a PS/2 external mouse with a serial interface conversion function is connected to the port, it may not operate normally.

Lock Slot for Security (LOCK)

This slot allows you to connect a cable (made by Kensington) to anchor your computer to a desk or other large object to prevent theft.

DC-IN Jack (DC IN15V)

Connect the DC plug of the supplied AC Adaptor.

Parallel Port (PARALLEL)

Used to connect a parallel device such as a printer.

Headphones Jack (SPK OUT)

Connect stereo headphones or a speaker with amplifier to this jack. Sound from the speakers is muted when the headphones or a speaker is connected. This is a miniature jack (3.5 DIA).

Serial Port (SERIAL)

Used to connect a serial device such as a serial mouse or an external modem.

AT Bus Connector (AT BUS)
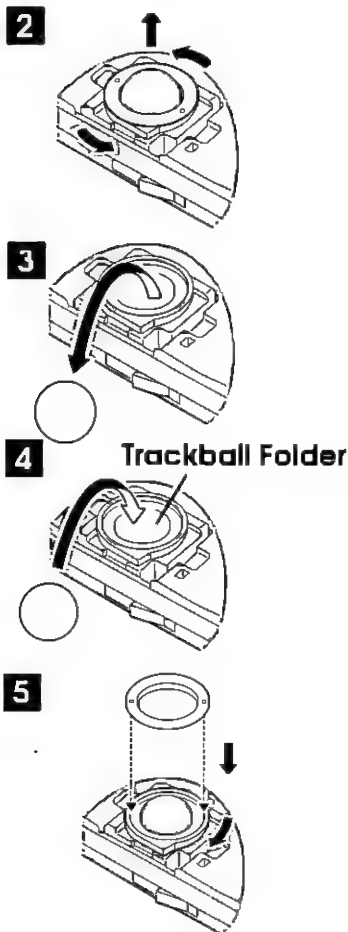
Connect the Docking Unit (function expansion box), available as an optional accessory, to this connector.

Microphone Jack (MIC)

Connect only supplied microphone to this jack. This is a miniature jack (3.5 DIA).

VGA Monitor Port (VGA)

Connect a VGA or S-VGA monitor cable to this port.

2-5
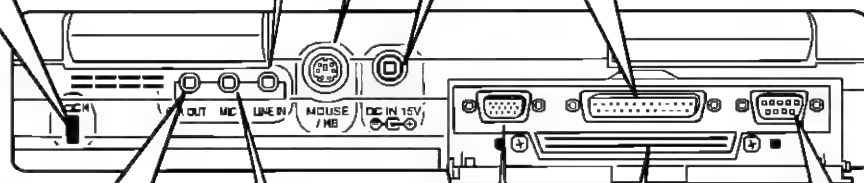
Cleaning the Trackball

1 Opening the keyboard panel

Slide the latch at the front of the computer to the right to open up the keyboard panel.

2 Removing the ring

Turn the ring counterclockwise by hand and lift it straight up to remove.

3 Washing the trackball in water

Remove the ball. After washing it in water, wipe it dry with a clean cloth.

Do not use paint thinner, benzine or other solvents.

Trackball Folder

4 Returning the trackball

Before returning the trackball, use a cloth to wipe the trackball folder clean as well. Check that there is no dirt or dust on the ball and then return it to its original position.


5 Returning the ring

Align the two small holes on the ring with the position shown in the illustration (click position), fit it securely in place, and turn it clockwise until it stops.

Numeric Keypad

Pressing **Fn** + **Keypad** activates the keypad and lights the KeyPad indicator. Pressing the combination again deactivates the keypad and turns the indicator off. Alternately, holding **Fn** down allows the use of the keypad keys in the same way as above. When NumLK is activated in conjunction with KeyPad, the shaded keys operate as shown in the illustration.

NumLK On & Keypad On
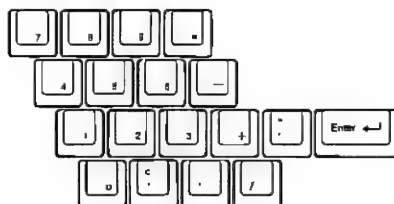
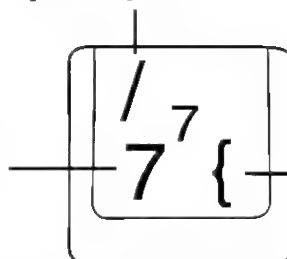### NumLK Off & Keypad On
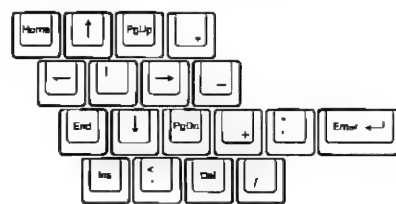
Key Functions for European Models Only

To Input the Symbols

Hold down **Shift** and press the key to input this symbol.

Press the key with no other keys held down to input this symbol.

Hold down **Alt Gr** and press the key to input this symbol.

(This figure shows an example of the key functions for the German model.)

2-7

Key Combinations

Key Combination	Feature and Meaning
Fn + F4	**CD-ROM OFF** (to conserve battery power) This turns off the CD-ROM drive motor so as to conserve the battery power. As soon as the CD-ROM drive is accessed, the power of the CD-ROM drive motor is turned on. However, approximately 10 seconds are required until data is actually read from the CD-ROM. **CAUTION** Do not use this key combination while the CD indicator is lit or a CD-ROM based application is running as errors or program failure may occur.
Fn + F5	**Speaker** This switches the internal speaker ON or OFF.
Fn + F7	**Audio CD Player** (only when Windows is running) The CD Player is started up and the CD Player window appears on the screen.
Fn + F8	**Volume Control** (only when Windows is running) This appears on the screen, and the volume balance can be adjusted.
Fn + F9	**Remaining Battery Charge** The remaining battery charge is diaplayed by the four CapsLK, NumLK, ScrLK and KeyPad indicators.
Fn + F10	**Standby Mode** (to conserve battery power) This turns off the hard disk motor, CPU*, LCD and its backlight. To turn on, press any key.· * Only when Windows is running Do not use this key combination while applicaiton is running. Especially, communication errors may occur while communications software is running . **CAUTION** Do not enter the standby mode when using an external monitor. The screen saver will not function correctly as it will stop, continuing to display the screen at that time.
Fn + POWER Switch	**Power Off** (only in MS-DOS mode) The computer does not enter suspend mode or hibernation mode even when the suspend function* or hibernation function* is enabled, and the power turns off. **CAUTION** Do not use this key combination when Windows is running. You may destroy the data on the hard disk.

* The suspend function or hibernation function allows you to switch the power off during the operation of a program, and then switch power on and return without rebooting to the same condition as before power was switched off.

Troubleshooting 3

Troubleshooting

This computer has been designed and manufactured to deliver the highest degree of performance and quality possible. However, if you should suspect a malfunction upon startup, please perform the following troubleshooting procedures.

If the trouble persists:
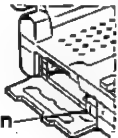
1 Immediately stop using the computer and refer to this troubleshooting guide. If you continue to use the computer, you may lose data and destroy problem-related information.

2 Make a note of the operations you performed and the condition of the computer (including any error messages) immediately preceding the malfunction.

3 Consult your nearest Panasonic Notebook Computer dealer.

Startup Problems

Problem	Action
The computer doesn't operate.	• Check that connections are secure between the computer and the AC adaptor, and between the AC power cord and AC wall outlet. • Confirm that a fully charged battery pack is installed properly. • Reboot the computer by pressing the RESET button on the left side of the computer.
Information on the LCD screen isn't visible.	• Adjust the LCD contrast control. (Only for 10.4" LCD model) • The LCD may have automatically turned off due to the power-saving function. Press a key to restore the screen. • Has an external monitor been selected in the setup program?
The LCD screen is too dark.	• Adjust the LCD contrast control. (Only for 10.4" LCD model) • Adjust the brightness switch. (When turning on the power, it will take 5 to 10 minutes for the display to reach normal brightness.)

The external VGA monitor does not work properly.	• Check whether the external monitor connected to the computer is a color or a monochrome unit, and execute one of the following commands in MS-DOS mode:
	    For a color monitor: mode co80 ⏎
	    For a monochrome monitor: mode mono ⏎

Problem	Action
The wrong date and time appear on the Date/Time.	• Use the "Control Panel" in Windows or the DATE and TIME commands in MS-DOS mode to set the Date/Time to the proper values. If operation still does not return to normal, contact your nearest Panasonic dealer. • Perform the Date/Time setting again when turning on the power for the first time in the year 2000 (including when you restart the computer while it is in the suspend mode or the hibernation mode).
You have forgotten the system password.	• Contact your nearest Panasonic Service Center.
"Please run Setup Press F1 key" appears.	• Press the **F1** key. Once Windows starts, execute the setup program (Setup41 Windows) and set the operating environment.

During Operation

Problem	Action
The computer suddenly stops operating.	• When operating the computer with a battery pack, the power may become depleted. You must install a fully charged main battery pack or connect the AC adaptor. • The system may have hung up due to a problem in the application software you are using. Stop using the application software and reboot the computer. • Push the RESET button on the left side of the computer to reboot the computer. Note that all unsaved data is erased. **RESET Button**
The battery indicator is red.	Battery is low. • Connect the AC adaptor to charge the battery. • If you have a fully charged main battery pack, then disable the suspend function and hibernation function, switch off the power, and insert the battery pack. If the battery indicator is still red after the above measures, contact your nearest Panasonic dealer.
Windows does not function correctly after modifying the Windows settings.	• The modified settings may not be correct. Startup Windows in safe mode, and use the necessary Properties to carry out the settings again. (For example, if the display is malfunctioning, use "Display Properties".) To startup Windows in safe mode, turn off the power (see page 1-7 for how to turn off the power) and then turn on the power again, pressing **F8** as soon as "Starting Windows 95..." is displayed. Select Safe mode from the menu displayed.

Problem	Action
The battery indicator blinks red.	• The battery or AC adaptor may not have been connected properly. Refer to the Operating Instructions, and make the proper connections. There is no trouble if the battery indicator no longer blinks red. • If the above trouble persists, trouble has occurred in the battery, charging controller, etc. Contact your nearest Panasonic dealer.
The beeper sounded.	• The battery has begun to run out. Connect the AC adaptor to charge or install a fully charged main battery pack.
The battery indicator remains lit up red for a long time.	• Proceed with refreshing. • There may have been a sudden change in temperature. In a case like this, there is no need for refreshing.

Peripheral Devices Problems

Problem	Action
The printer doesn't work.	• Ensure that the cable between the computer and printer is connected securely. • Ensure that the printer's power is switched on. • Ensure that the printer is in the ONLINE state. • Ensure that "OFF" is not selected for "Parallel Port (Address)" in the setup program.
The mouse doesn't work.	• Ensure that the mouse cable is connected securely to the computer. • When a mouse is connected to the serial port, select "Serial Port" for "Mouse" in the setup program. Also check the parameter for "Serial Port". • When a PS/2 mouse is connected to the external mouse/keyboard port, select "Built-in Track Ball/Mouse Port" for "Mouse" in the setup program.
The trackball doesn't work.	• Check to see if an external mouse (PS/2 type) is connected to the external mouse/keyboard port. The trackball cannot be used when an external mouse is connected to the external mouse/keyboard port. • Select "Built-in Track Ball/Mouse Port" for "Mouse" in the setup program.
The modem doesn't work.	• Change the communication speed or other modem settings and restart the computer.

Problem	Action
The cards (RAM and PC Card or the ISA board installed in the optional Docking Unit) cannot be used.	• Check the orientation of the card, and install it in the correct slot. • Are you using a card other than those specified? • It is necessary to update drivers to Windows 95. Contact the card manufacturer. • Be sure to reboot the computer when installing a PC Card driver or other device driver. - Check the I/O port used by the PC Card or the ISA board installed in the optional Docking Unit and set addresses other than those listed below.

I/O: 000H-00FFH (system board reserved)
x170H-x177H (CD-ROM)
x1F0H-x1F7H (HDD)
x220H-x22FH (Sound)*[1]
x240H-x24FH (Sound)*[1]
x3E8H-x3EFH (COM3)*[3]
x2F8H-x2FFH (COM)*[3]
x376H-x377H (CD-ROM)
x378H-x37FH (LPT)*[2]
x388H-x38BH (FM)
x3B0H-x3BBH (VGA)
x3BCH-x3BFH (LPT)*[2]
x3C0H-x3DFH (VGA)
x3E0H-x3E1H (PC Card controller)
x2E8H-x2EFH (COM4)*[3]
x3F0H-x3F7H (FDC)
x3F8H-x3FFH (COM)*[3]

> When the LPT address is set to 378:
> x37BH-x37FH (LPT)
> x778H-x77AH (LPT)

*[1] The Sound address can be switched to "x240H-x24FH (Sound)" using the DIP switch. The DIP switch is located at the sub battery connector's side. Disable the suspend function and hibernation function and turn off the computer before setting the DIP switch. (Regarding sub battery removing and attaching, please refer to page 1-20.)

DIP Switch		Sound Address
ON	ON	x240H-x24FH
OFF	OFF	x220H-x22FH

*[2] The LPT address can be selected Automatic (PnP), 3BC, 378 or OFF using the setup program. When Automatic (PnP) is selected, unused addresses are set in the order of 378, 278 and 3BC.

*[3] The COM address can be selected Automatic (PnP), 3F8 or OFF using the setup program. When Automatic (PnP) is selected, unused addresses are set in the following order.

x3F8H - x3FFH (IRQ4)
x2F8H - x2FFH (IRQ3)
x3E8H - x3EFH (IRQ4)
x2E8H - x2EFH (IRQ3)

An "x" in front of an address denoted that the address cannot be used regardless of the values of the address line (A15-A10).

Problem	Action
	• Check the IRQ number used by the PC Card or the ISA board installed in the optional Docking Unit, and use one of the following settings. IRQ: 3*¹, 5*³, 7*², 9, 10*³, 11 *¹ IRQ3 is normally used for the fax/modem card. IRQ3 cannot be used when the COM address has been set to 2F8 or2E8. *² IRQ7 is normally used for the printer. *³ When the IRQ5 or 10 setting has been selected for the Sound Chip by the setup program, the IRQ number which has been set cannot be used.

LCD Problems

Problem	Action
Screen display turned off.	• Depending on the power management setup, the computer may enter the standby mode. Press any key to turn on the display.
Afterimages appear on the LCD.	• When an image is left on a color LCD, it can become burned into the LCD, and remain as an afterimage. This is not a system malfunction; if a different screen is displayed for a while, the afterimage will disappear.
Green, red or blue dots remain on the LCD.	• As a characteristic of color LCD's, these dots are known to appear, but it does not indicate any malfunction.
When displaying simultaneously to the internal LCD and an external monitor, the font size and area displayed on the external monitor become smaller.	• When displaying simultaneously to the internal LCD and an external monitor, the display on the external monitor is as given below. This is not a malfunction. - The font size is smaller. - The display area becomes smaller, and is displayed in the center of the screen (in particular when set to 640 x 840). When an external monitor is used alone, the font size (dot count) and display area are automatically adjusted.
Screen saver does not work for external monitor. Or, the screen saver's screen stops.	• When you want to use the screen saver when displaying an external monitor or simultaneously to the internal LCD and an external monitor, do not enter the standby mode. (Either turn off power management in the setup program, or ensure **Fn + F10** is not pressed.) If you enter the standby mode when using an external monitor, the screen saver will not function correctly as it will stop, continuing to display the screen at that time.
Cannot display in True Color [16.77 million colors] mode.	• The computer supports upto High Color [65,536 color] mode. Use set to High Color or lower setting.

Drive Malfunctions

Problem	Action
The computer won't access the hard disk drive.	• Ensure that you have prepared the hard disk properly. If the cause is still unknown, consult your nearest Panasonic dealer.
The computer won't access the CD-ROM disc drive.	• Install the CD-ROM disc after checking that the right side is facing up. • Ensure that the keyboard panel is closed securely.
The computer won't access the floppy disk drive.	• Ensure that you have inserted the floppy disk securely into the drive. • Did you attempt to write to or read from a non-formatted disk? Floppy disks must be formatted before they can be used. • Ensure that the write-protect tab is in the write-enable position. • Ensure that "Read only" is not selected for "Floppy Operation" in the setup program. • Ensure that you have installed the FDD Pack securely.

Error Codes

Code	Description
101	Interrupt Controller Failure
102	Timer Failure
114	External ROM Checksum Error
151	Real Time Clock Failure
161	Dead Battery
162	CMOS Checksum/Configuration Error
163	Clock Not Updating
164	CMOS Memory Size Does Not Match
201	Memory Data Error
301	Keyboard Error
303	Keyboard to System Board Interface Error
601	Floppy Disk Drive or Controller Error
602	Floppy Disk IPL Boot Record Not Valid
604	Floppy Disk Drive Failure
1780	Hard Disk 0 Failed
1781	Hard Disk 1 Failed
2400	Display Adaptor Failed
8601	System Board Error-Keyboard/Mouse/Trackball Interface
8603	Mouse/Trackball or System Board Error
19990301	Hard Disk Failure
19990305	An Operating System Could Not Be Found
0	Default Configuration in Use or Keyboard Is Locked
Other Numbers	The Computer POST Found an Error

Diagnostics Program

The DIAG41 program is provided to allow the user to perform tests to confirm proper operation of the computer's various parts.

The desired test items are selected from the diagnostic menu.

NOTE

- When running the DIAG41 program, always boot up with the Firstaid FD.
- Do not execute the DIAG41 program from other operating systems (OS/2, Windows NT etc.).

Perform from Firstaid FD

Insert the Firstaid FD (page 1-4) in the floppy disk drive.

↓

Restart or turn on the computer.

↓

This screen appears.

↓

Select "1. Boot" and press **Enter**.

```
Microsoft Windows 95 Startup Menu

1. Boot
2. Restore HDD to factory default
Enter a choice: 1
```

↓
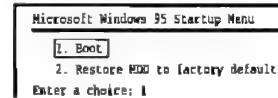
At the A:\WINDOWS\COMMAND> prompt, type the following:
   diag41 ↵

↓

```
            DIAGNOSTIC MENU (V★.★L★★)

          1. TEST ALL DEVICES (■ DEVICES)
          2. TEST AUTOMATICALLY (■ DEVICES)
          3. CHANGE MENU
          4. EXIT
   ■      5. MAIN BOARD
   ■      6. ★★★KB RANDOM ACCESS MEMORY
   ■      7. KEYBOARD
          8. TRACK BALL
          9. BATTERY
   ■     10. VIDEO
   ■     11. 1 HARD DISK DRIVE (S)
   ■     12. 1 FLOPPY DISK DRIVE (S)
         13. 1 PARALLEL PORT (S)
   ■     14. 1 SERIAL PORT (S)
         15. CD-ROM
         16. SOUND

    SELECT MENU : 1
```

If "Serial Port" has been set to "OFF" in "System Setup" of setup program, "14. 1 SERIAL PORT (S)" is not displayed. Also, if "Parallel Port (Address)" has been set to "OFF" in "System Setup" of setup program, "13. 1 PARALLEL PORT (S)" is not displayed.   **3-7**

Key Operations

Key	Result
Esc	Returns to the previous menu display during the display of an item menu.
↑ ↓	Changes the selection item. You can select the item by typing the number beside the item.
Enter	Performs tests.
Ctrl + P	Prints the test results using the printer.
Ctrl + Pause Break	Cancels the diagnostic test program (except for KEYBOARD PRESS KEY TEST).

Main Test

Details of the DIAG41 main tests and checkpoints are outlined below.
(A description of some of the items is omitted.)

Item	Checkpoints
TEST ALL DEVICES	Tests all devices marked with a square (■).
TEST AUTOMATICALLY	Consecutively, tests all devices marked with a square (■).
CHANGE MENU	The items (■) to be tested by "TEST ALL DEVICES" and "TEST AUTOMATICALLY" can be changed. When the cursor is moved to an item and **Enter** is pressed, (■) can be added or removed.
EXIT	Exits the program and reboots.
MAIN BOARD	Tests ICs other than the RAM. Don't perform keyboard input.
***KB RANDOM ACCESS MEMORY	Tests base memory and extended memory. If **Ctrl + Pause Break** is pressed during the memory test, keyboard input may become impossible.
VIDEO	Tests the screen display and video controller. The 1024 x 768 high-resolution screen test (for the 10.4" LCD model, the S-VGA high-resolution screen test) can only be performed during display to an external monitor. To switch the screen display and perform the test, perform the switch using the setup program, and run DIAG41.
1 HARD DISK DRIVE (S) 1 FLOPPY DISK DRIVE (S)	Tests the hard disk drive or the floppy disk drive. Data will be written to and read from the disk, and depending on the test performed, data on disk may be overwritten. Either back up all important data on the hard disk for safety reasons or use a floppy disk with data which can be erased.
1 PARALLEL PORT (S) 1 SERIAL PORT (S)	Tests the parallel port or serial port. Before conducting the EXTERNAL LOOPBACK TEST: Attach the Dsub-25 male loopback connector to the parallel port and the Dsub-9 female loopback connector to the serial port.

Item	Checkpoints
CD-ROM	Tests the CD-ROM. Conduct the READ TEST after setting the enclosed Firstaid CD.
SOUND	Tests the sound played back at the FM sound source.

Re-installation

When the hard disk contents have been lost or deleted, the hard disk can be restored to the state in which the computer was purchased by following the procedure outlined below. When re-installation is performed, some setting will revert from the CF-41 series settings when the computer was purchased to the original Windows settings. (For example, the position or order of the icons displayed on the left of the screen.)

CAUTION
- The hard disk drive contains a partition (approx. 60 MB) for system use. Take care not to delete this partition. There is a chance that this partition may be deleted by the FDISK and other commands.
- When carrying out re-installation, disconnect all peripheral devices, such as external monitors or PC Cards.
- Do not enter the power off, or suspend mode or hibernation mode while re-installation is still in progress.
- Do not stop the re-installation process before it is complete. Doing so will make it impossible to perform re-installation later on.

There are two ways to restore the hard disk contents
1) **Formatting of the entire hard disk (re-installation for beginners)**
   The entire hard disk is formatted whether or not it has been partitioned.
2) **Formatting of the hard disk's DOS partition only (re-installation for advanced users)**
   This method applies when the hard disk is partitioned and the Primary DOS Partition is active. Only the DOS partition is formatted; the other partitions leave as it is.
   If, for instance, the hard disk has partitions for DOS and non-DOS applications, this method will re-install only the contents of the active DOS partition; the non-DOS partition will remain as it is. This method should be used only by advanced users. Users who are not knowledgeable about computers should use method 1.

Formatting of the Entire Hard Disk (for beginners)

1 When the main battery or FMV Pack2 has been set in the Multimedia Pocket, remove it and install the floppy disk drive in its place.

2 Insert the Firstaid FD (page 1-4) you previously created in the floppy disk drive, and place the enclosed Firstaid CD in the CD-ROM drive.

NOTE ——————————————————————
Do not remove the Firstaid FD until instructed to do so.

3 Turn the computer power on. The screen shown below appears:
```
1. Boot
2. Restore HDD to factory default
```

4 Select "1" and press **Enter**.

5 At the A:\WINDOWS\COMMAND> prompt, type:

setup41/f (⏎)

The computer will reboot automatically and the screen shown below appears:
```
1. Boot
2. Restore HDD to factory default
```

6 Select "2" and press **Enter**.

NOTE ——————————————————————
If the above screen does not appear, turn the computer power off by pressing **Fn** + POWER switch. Turn the power back on, and press **F2** a number of times immediately. "301" (keyboard error) now appears so press **F6** and reboot the computer from the floppy disk. Also, if "301" (keyboard error) does not appear, reboot the computer using the RESET button. If the computer does not reboot, consult your nearest Panasonic dealer.

7 A verification message now appears. Press **Y** and follow the instructions on the screen. The computer will be rebooted a few times, proceed again from step **6**.

NOTE ——————————————————————
- If you select "1. Boot" by mistake, you will unable to continue.
- When the computer is rebooted, do not remove the Firstaid FD from the floppy disk drive.
- Do not input from the keyboard when the HDD, FDD or CD indicator is lit.

8 After several files has been copied the following message appears.
```
Please set "Windows 95 Installation CD-ROM".
Press any key to continue...
```

9 Remove the Firstaid CD from the CD-ROM drive. Next, place the CD-ROM disc included in the Windows 95 System Pack in the CD-ROM drive and press any key. Make certain you have read the CAUTION (next page) before following the instructions on the screen.

CAUTION ————————————————————————

• Always select the default settings on all screens except the following. In particular, if you select "Other directory" from the "Choose Directory" screen, it may not be performed correctly.

    <u>On the "Analyzing Your Computer" screen:</u>

        Select "Sound, MIDI, or Video Capture Card".

• On the "Startup Disk" screen, after selecting "Yes, I want to a startup disk [recommended]", a startup disk is created partway through the Windows 95 Setup. Onece it is completed, insert the Firstaid FD and click "OK".

• The CD-ROM drive is not specified L drive until the re-installation has completed. When carrying out the re-install by the beginners procedure, D drive is specified. For the advanced users procedure the next drive after the hard disk is specified.

---

10 When the Windows 95 Setup has finished, the "Finishing Setup" screen appears. Remove the Firstaid FD from the floppy disk drive and click the "Finish" button.

11 The computer will reboot automatically. Follow the instructions on the screen and carry out the desired regional settings and printer settings.

NOTE ————————————————————————

When carrying out the Printer settings, the following message appears part way through.

        Please insert the disk labeled "Windows 95 CD-ROM", and
        then click OK.

Confirm that the Windows 95 CD-ROM is set and click "OK", the "Copying Files" screen will appear. In the "Copy files from:" frame on the screen "L:WIN95" is displayed. In the case of the beginners procedure, rewrite this to "D:WIN95". In the case of the advanced users procedure, rewrite "L" to the next drive after the hard disk.

---

12 The verification message to restart the computer will appear. When you click "OK", the computer will reboot automatically.

13 When Windows has started up, click the "Start" button, and then click "Run...".

14 To install utility programs, type as shown below inside the frame and click the "OK" button.

        Open: | c:\install |

The MS-DOS Prompt appears on the screen and after several files have been copied the computer will reboot automatically.   **3-11**

15 When Windows has started up, click the "My Computer" by the right button and select "Properties" from the menu displayed.

16 Click "Drive Manager" from the "System Properties" screen and remove all of the "Ports [COM & LPT]" item from the hardware list displayed. When all items have been deleted, "Ports [COM & LPT]" is also removed from the list.

17 Switch off the power to take effect new settings. Click the "Start" button and then click the "Shut Down...". The "Shut Down Windows" will appear, select "Shut down the computer?" and click "Yes" button.

18 To install the CardWorks™ utility program, turn the computer on and insert the Firstaid CD. Click the "Start" button, and then click "Run...". Type as shown below inside the frame and click the "OK" button.

Open: `l:\cworks\setup.exe`

Follow the instructions on the screen. When CardWorks™ has installed, the computer will reboot automatically.

NOTE ────────────────────────

- When re-install is performed, the computer does not return to exactly the same settings as at the time of purchased.

  To bring the computer close to the condition at the time of purchase, double-click "Add/Remove Programs" in the "Control Panel". Using the "Windows Setup" in the "Add/Remove Programs Properties" screen, check (enable) all of the check box given below.

In Accessibility Options:	In Communications:
✓ Accessibility Options	✓ Hyper Terminal
In Accessories	✓ Phone Dialer
✓ Briefcase	In Disk Tools
✓ Calculator	✓ Backup
✓ Character Map	✓ Disk Compression Tools
✓ Desktop Wallpaper	In Microsoft Exchange
✓ Document Templates	✓ Microsoft Exchange
✓ Games	✓ Microsoft Mail Services
✓ Mouse Pointers	In Multimedia:
✓ Online User's Guide	✓ Audio Compression
✓ Paint	✓ CD Player
✓ Quick View	✓ Jungle Sound Scheme
✓ Screen Savers	✓ Media Player
✓ Additional Screen Savers	✓ Musica Sound Scheme
✓ Flying Windows	✓ Robotz Sound Scheme
✓ System Monitor	✓ Sample Sounds
✓ System Resource Meter	✓ Sound Recorder
✓ Windows 95 Tour	✓ Utopia Sound Scheme
✓ WordPad	✓ Video Compression
	✓ Volume Control
	In The Microsoft Network
	✓ The Microsoft Network

- The wallpaper setting will revert from the CF-41 setting to the original Windows setting. To restore the wallpaper setting, click on the wallpaper of screen by right button and select "Properties" from the menu displayed. Set the wallpaper item to "pana_g" and select "Tile".

Formatting of the Hard Disk's DOS Partition Only (for advanced users)

Before re-installing the hard disk contents, check that the Primary DOS Partition is active by using FDISK command. To re-install the hard disk contents, the size of the Primary DOS Partition(C drive) must be a minimum of 200 MB.

1 When the main battery or FMV Pack2 has been set in the Multimedia Pocket, remove it and install the floppy disk drive in its place.

2 Insert the Firstaid FD (page 1-4) you previously created in the floppy disk drive and place the enclosed Firstaid CD in the CD-ROM drive..

3 Turn the computer power on. The screen shown below appears:
```
1. Boot
2. Restore HDD to factory default
```

4 Select "1" and press **Enter**.

5 At the A:\WINDOWS\COMMAND> prompt, type:
```
setup41/f  ⏎
```
The computer will reboot automatically and the screen shown below appears.
```
1. Boot
2. Restore HDD to factory default
```

6 Select "1" and press **Enter**.

7 At the A:\WINDOWS\COMMAND> prompt, type:
```
cd \mkd2  ⏎
reinst  ⏎
```

8 Carefully read the message that appears. To begin formatting, press any key. After formatting, some files are copied. After some files are copied, the following message appears.
```
Please set "Windows 95 Installation CD-ROM".
Press any key to continue...
```

9 Install Windows using the procedure described in step **7** to **18** of "Formatting of the Entire Hard Disk (for beginners)".

NOTE ──────────────

• At the "Microsoft ScanDisk" screen, the installation may stop temporarily. Click "Exit" to start the installation.

• When carrying out the printer settings at step **9**, the CD-ROM drive should be specified not by L, but by the next drive after the hard disk.
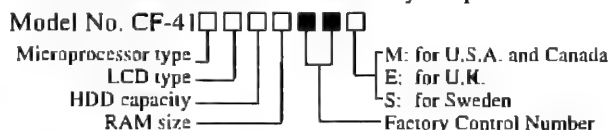
Appendix

Specifications

This appendix summarizes technical specifications for the CF-41.

Specifications are subject to change without notice.

The models in the CF-41 series are numbered in accordance with the types of the CPU, LCD and HDD etc. featured by the product.

Model No. CF-41☐☐☐☐■■☐
- Microprocessor type
- LCD type
- HDD capacity
- RAM size
- M: for U.S.A. and Canada
- E: for U.K.
- S: for Sweden
- Factory Control Number

Microprocessor

CF-41F series:	IntelDX4™ /75 MHz, Internal cache 16 KB
CF-41P series:	Pentium™ /75 MHz, Internal cache 16 KB, Level2 cache 256 KB
CF-41R series:	Pentium™ /120 MHz, Internal cache 16 KB, Level2 cache 256 KB

LCD

CF-41☐ J series:	12.1" Active Matrix TFT (Thin Film Transistor) Color LCD Resolution: 800 x 600 dots
CF-41☐ T series:	10.4" Active Matrix TFT (Thin Film Transistor) Color LCD Resolution: 640 x 480 dots
Graphics:	65,536 colors
Surface Treatment:	Anti-static non-glare treatment

Hard Disk Drive (2.5-inch)

Capacity varies based on the installed HDD.

CF-41☐☐5 series:	540 MB*
CF-41☐☐8 series:	810 MB* * 1 MB=10^6 bytes
CF-41☐☐C series:	1.35 GB** ** 1 GB=10^9 bytes

To use the hibernation function approx. 60 MB of free memory are used.

Memory

CF-41☐☐☐2 series:	8 MB (expandability: 24 MB)
CF-41☐☐☐4 series:	16 MB (expandability: 32 MB)

AC Adaptor

Primary Voltage:	100 V to 240 V AC
Secondary Voltage:	15 V DC
Secondary Current Capacity:	4 A (Max.)

Power Consumption (When the AC adaptor is connected)

Power On (Charging / Fully charged);	IntelDX4™ CPU Model:	38 W / 25 W
	Pentium™ CPU Model:	40 W / 27 W
Power Off (Charging / Fully charged);	30 W / 1.5 W	

Battery Pack (Main/Sub)

	Ni-MH (Nickel Metal Hydride) rechargeable battery pack
Voltage:	9.6 V
Charging Time:	Power On: Approx. 5.8 hours*
	Power Off: Approx. 3.9 hours* *These values serve only as guidelines.
Operating Time:	Approx. 3.0 to 5.5 hours*
	(Power Management : Advanced, Brightness Switch : Low,
	CD-ROM : Motor off status, main and sub batteries : mounted)

Clock Battery

	Coin type lithium battery
Voltage:	3.0 V .
Operating Time:	Approx. 10 years

Ports

Parallel Port:	Dsub 25-pin female
Serial Port:	Dsub 9-pin male
External VGA (SVGA) Monitor Port:	Mini Dsub 15-pin female
External Mouse/Keyboard Port:	Mini DIN 6-pin
AT Bus Port:	200-pin female
Microphone Jack:	Monaural input (Miniature Jack, 3.5 DIA)
	Input impedance 2.2 kΩ
	Input voltage range 10 mVp-p to 125 mVp-p
Headphones Jack:	Stereo output (Miniature Jack, 3.5 DIA)
	Impedance 32 Ω
	Output voltage range 0.24 mW (impedance 32 Ω)
Stereo Input Jack:	Stereo input (Miniature Jack, 3.5 DIA)
	Input impedance 1 kΩ
	Input voltage range 0.7 Vp-p

Slots

PC (PCMCIA) Card Slots:	2 Slots for Type I or II/1 Slot for Type III
	Allowable power requirements for the two slots combined (Max.):
	During 5 V operation : 400 mA / During 12 V operation: 60 mA
Expansion RAM Slot:	88-pin
Multimedia Pocket Slot:	160-pin

Floppy Disk Drive

1.44 MB double-sided, high-density, double track
720 KB double-sided, double-density, double track

CD-ROM Drive

	4 x speed
Average Access Time	250 ms (Quad Velocity Mode)
Data Transfer Rate	640 KB/sec. (Quad Velocity Mode)

Software

Operating Environment:	Microsoft® Windows® 95 (pre-installed)
Utility Programs:	Diagnostics program, Setup program, CardWorks™ utility program, CF-41 On-Line Manual

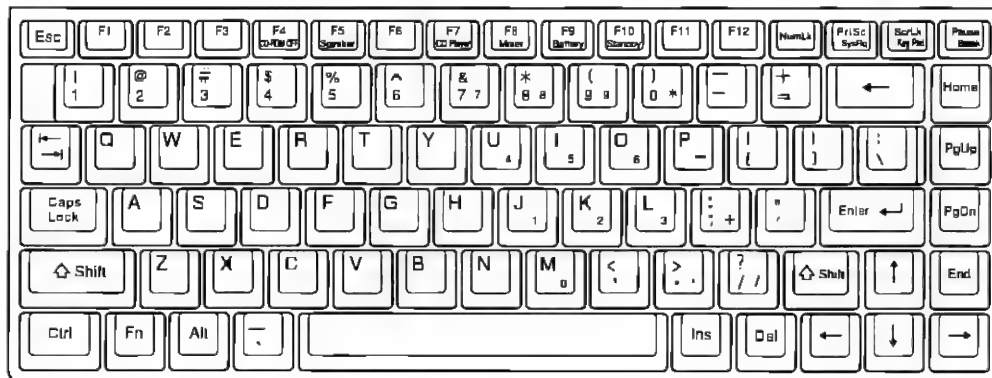## Environment (Temperature / Humidity range)

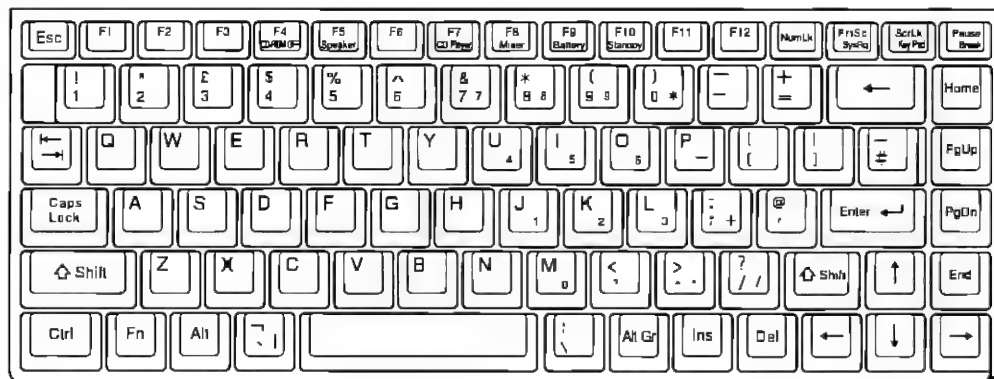|	
Operating:	5 °C to 35 °C (41 °F to 95 °F) / 30% to 80% RH (no condensation)
Storage:	-20 °C to 60 °C (-4 °F to 140 °F) / 30% to 90% RH (no condensation)

Physical Dimensions (including main and sub battery packs)

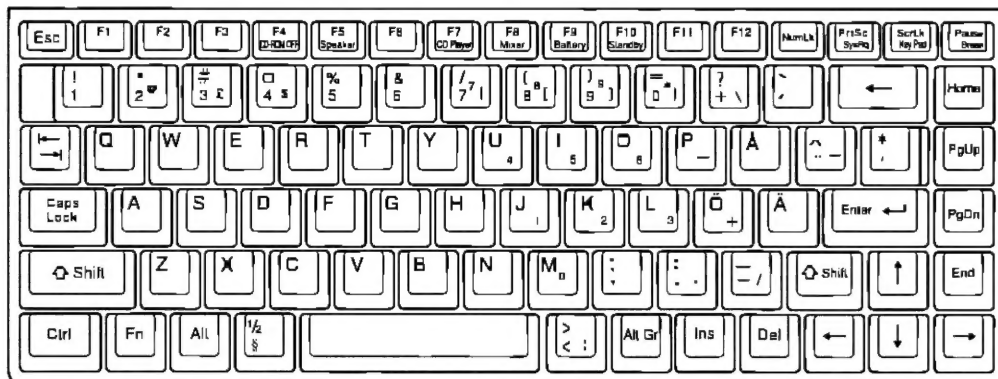|	
Weight:	8.8 lbs (4.0 kg)
Size (Width x Height x Depth):	12.1" LCD Model : 1.7" x 2.3" x 9.3" (297 x 59 x 237 mm)
	10.4" LCD Model : 1.7" x 2.3" x 9.3" (297 x 59 x 235 mm)

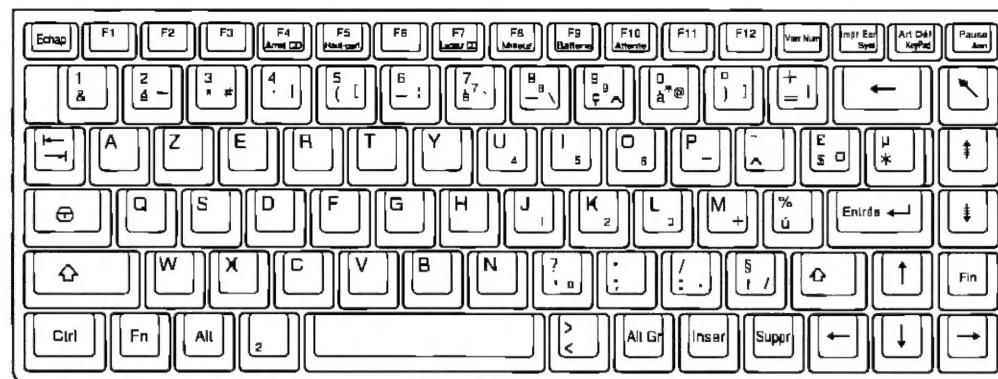# Keyboard Layout

U.S. Keyboard

U.K. Keyboard

German Keyboard
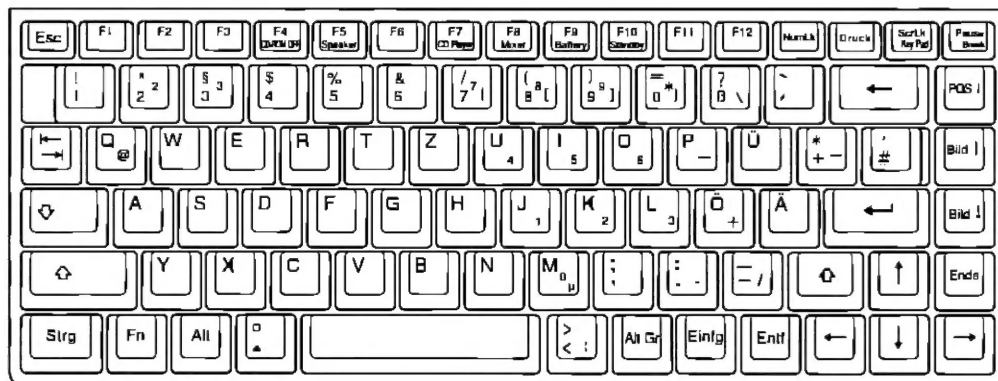
Swedish Keyboard
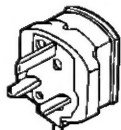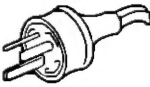

French Keyboard

Power Cord Instruction (for U.S.A.)

Model: CF-41 series for U.S.A.

1. For use with 100-125 VAC. Select power supply cord rated 125 V, 7A.

2. For use with 200-240 VAC. Select power supply cord rated 250 V, 6A.

3. The power supply cord length is minimum 1.0 m.

4. If you use the power supply cord, please refer to the following lists.

PLUG CONFIGURATION	USAGE	NOMINAL VOLTAGE and CURRENT RATING
UL LISTED	North America	120 V, 60 Hz 7 Amp. (max.)
	Universal Europe	220 V, 50 Hz 6 Amp. (max.)
	United Kingdom	240 V, 50 Hz 6 Amp. (max.)
	Australia	240 V, 50 Hz 6 Amp. (max.)
UL LISTED	North America	240 V, 60 Hz 10 Amp. (max.)
	Switzerland	220 V, 50 Hz 6 Amp. (max.)

Important
(for German)

Bescheinigung des
Herstellers/Importeurs (für BRD)

Hiermit wird bescheinigt, daß der/die/das

Notebook Computer CF-41 _
(Gerät, Typ, Bezeichnung)

in Übereinstimmung mit den Bestimmungen der BMPT-AmtsblVfg 243/ 1991 funk-entstört ist. Der vorschriftsmäßige Betrieb mancher Geräte (z. B. Meßsender) kann allerdings gewissen Einschränkungen unterliegen. Beachten Sie deshalb die Hinweise in der Bedienungsanleitung. Dem Bundesamt für Zulassungen in der Telekommunikation wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf die Einhaltung der Bestimmungen eingeräumt.

Panasonic Deutschland GmbH _
Winsbergring 15,22525 Hamburg _
(Name und Anschrift des Herstellers/Importeurs)

Dieses Gerät entspricht als Einzelgerät den Entstörauflagen der BMPT Vfg. 243/1991 bzw. DIN VDE 0878 Teil 3/11.89, Grenzwertklasse B. Beim Betrieb innerhalb von Anlagen sind die einschlägigen Funkentstörbestimmungen einzuhalten.

Um HF-Störungen zu vermeiden, darf ausschließlich das zugehörige Netzteil mit Ferritkern verwendet werden.

Bei Gebrauch eines anderen Netzteils erlischt die Betriebsgenehmigung.

Der obige Satz gilt nur für die Bundesrepublik Deutschland.

■ Warnung bezüglich der Lithiumbatterie (Sicherungsbatterie)

Lithiumbatterie!
Dieser Computer enthält eine Lithiumbatterie zur Sicherung von Datum und Uhrzeit der eingebauten Uhr sowie anderer Systemdaten im Speicher bei einer Unterbrechung der Hauptstromversorgung. Diese Sicherungsbatterie darf nur von Kundendienstpersonal ausgewechselt werden.
Warnung! Bei falschem Gebrauch besteht Explosionsgefahr!
Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

EPA POLLUTION PREVENTER

The ENERGY STAR™ emblem does not represent
EPA endorsement of any product or service.

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